



# BLENDED LEARNING APPROACHES AND MULTIMEDIA USAGE IN TEACHER EDUCATION

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## ABSTRACT

The global education systems, including those in India, were affected by the pandemic COVID-19. Online learning systems have been quickly embraced by educational institutions to offer classes. Instructors created hybrid modes of training that blended online and in-person learning. This strategy worked well to preserve communication between students and teachers. The National Education Policy (NEP-2020) aims to transform India's educational system, with a focus on blended and online learning. The policy suggests that to effectively provide quality education to all educational organizations, ranging from elementary to higher ones, including teacher education, these institutions should make use of online and blended learning resources. The blended learning models provide a good middle ground between online and in-person instruction, which further emancipates the teaching-learning processes, creating a learning environment that is more demanding and productive. The remote learning platform is primarily dependent on the e-learning infrastructure, which is a crucial component of the blended learning ecosystem.

Additionally, professional development programs and teacher training incorporate blended learning. To improve their teaching techniques and keep pace with emerging educational trends, educators should make use of online courses, webinars, and peer collaboration. In this paper, an attempt has been made to examine the blended learning approaches involved in teacher education, highlighting the use of multimedia usage in online learning and offline tutorials.

**KEYWORDS:** Blended Learning, Teacher Education, NEP-2020, ICT, Multimedia, Online Education.

## INTRODUCTION

A blended learning model combines the different advantages of face-to-face education and e-learning to ensure an effective learning environment is provided to the teacher and students (Kose, 2010). One may consider blended learning to be a major change in the twenty-first century of education. Some of the constraints or shortcomings present in the traditional classroom environment can be addressed by both teachers and students. It is a cutting-edge and crucial instructional tool that helps students enhance and succeed in their educational journey. Compared to earlier teaching-learning approaches, a teacher may impart knowledge and students can absorb it in a more adaptable and pleasant manner.

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2017).

## OBJECTIVES OF THE STUDY

In the present paper, the author has tried to discuss an overview of blended learning approaches in teacher education of the 21st century. The main objective of the study is to provide an overview of blended learning approaches in teacher education. The paper also focuses on the use of multimedia in the face-to-face interaction and online discussions among the teachers and the students.

## METHODOLOGY

This is a systematic review paper. The papers were gathered via various websites and online journals. A few papers were chosen for in-depth examination based on the requirements of the current study after their titles and abstracts were examined. For this study, relevant research articles, concept notes, and a government document on NEP 2020 were consulted. A thorough analysis of these studies is provided in this report.

## Blended Learning: An overview

The blended learning is more personalised educational approach where teachers are the facilitators and students are active learners. Hence, it completely shifts the roles of students and teachers in the teaching and learning process. According to Deghaidy and Nouby (2008), teachers using a blended learning method would need to possess certain pedagogical competencies. Students are not the passive receivers and

teachers do not perform the duty of knowledge transmitter in just a mechanical way. Students do not depend on the paper-and-pencil method in their learning; they feel benefited by using several digital tools and technologies that are relevant to their learning. Students could choose the most important learning activities with the access to online contents whenever and wherever they are. It uses a variety of digital media which enhances the media-driven learning of students.

**The features of blended learning were defined by Dziuban, Hartman, and Moskal (2004) as follows:**

1. a shift from teacher-centred to student-centred instruction in which teacher candidates become active and interactive learners;
2. increased student–instructor, student–student, student–content and student–outside resources interactions, and;
3. integrated formative and summative assessment mechanisms for teacher candidates and instructors.

**Broad Blended Learning Approaches in Teacher Education:**

#### 1. Flipped Classroom

This hybrid method combines in-person and virtual learning, two very effective training modalities, to provide training teachers with the best of both worlds. It is perfect for students when they are not able to take long breaks from work to attend lectures or conferences. (Fig.1). As part of a blended learning program, students receive certain course materials—like podcasts, lecture notes, or slides—before they meet in person with the teachers.



#### 2. Live Virtual Training

A well-crafted blended learning program is created to provide instruction solely via remote learning methods where distant or virtual learners need to be aware that:

- Attending these sessions is required.
- All the events will take place in real time; they will not be recorded for later viewing.

These blended learning tactics will not only help with the previously described financial and logistical issues, but they will also enable teachers to interact one-on-one with other employees of the organization. Peers will be able to work together and cooperate in real time on projects through this kind of session, such as group talks or break-out sessions.

#### 3. Shared Team Goals

The teaching learning is an engagement process, the teachers should set a series of shared goals for each student's team to accomplish. The teams of students can meet in person, at a

time and place convenient to them, and complete their assigned project.

#### 4. Personalized Blending

Using blended learning techniques is a great way to customize a course to fit the training requirements of each student while also making it suitable for a variety of participant groups. Using teleconferencing technology, even in its most basic form, to interact one-on-one with individual students while utilizing in-person sessions or virtual group meet-ups or chats for collective involvement is an excellent example of a blended learning method.

For such tactics to be effective, lecturers should be able to define, evaluate, and discuss objectives for each individual participant during one-on-one consultations. They should also be able to provide each participant with a customized performance criticism. Group aims and objectives might be evaluated in-person or virtually during class sessions, whether they apply to individual students or to the entire class.

#### Use of Multimedia:

Open educational resources (OER) are defined by the United Nations as any type of educational materials in the public domain or introduced with an open license. Critical to supporting open knowledge and open access, OER are learning materials supporting legal and free (a) copying, (b) usage, (c) adaptation and (d) sharing. These resources can be anything from textbooks to syllabi, lecture notes, tests, videos, or animations. (UGC, 2021)

In our country, a major initiative called PM eVIDYA was initiated as part of Atma Nirbhar Bharat Abhiyaan (the self-reliant India campaign) on 17 May 2020, which amalgamates all efforts related to the digital learning or online teaching and on-air education. Important programmes include organisation of DIKSHA (Digital Infrastructure for Knowledge Sharing –One Nation One Digital Platform), SWAYAM Prabha (One Class One TV Channel), Learning through Radio or Podcasts, and provision of digital learning content for children with special needs. The Samagra Shiksha (Integrated Scheme for School Education) programme aims to enhance educational access by providing support for ICT labs, integrated teaching and learning devices, and an open-source operating system, as well as hardware, software, training, and resource support for online and smart classrooms. ICT based e-learning through Moodle, Coursera, SWAYAM, NPTEL, edX, MOOC and Udemy is sophisticated virtual classroom learning with innovative opportunity to learn 'anytime and anywhere for everyone.

#### Platforms: Learning and Evaluation: LMS

It has been established that e-learning takes in many different forms, one of the most popular is Learning Management Systems (LMS), a software tool that allows management of online courses. LMS systems are used for course administration, study material distribution, and multiple-choice questioning of students during online tests. Additionally, all the major IT corporations, including Google, Microsoft, and Apple, provide tools for blended learning, such as Microsoft Classroom, Apple

Classroom, and Google Classroom; however, some of these are platform-dependent or require payment. Additionally, LMS include a plethora of options that can improve the efficacy of your course. They offer a simple way to grade assignments, administer quizzes and surveys, organize online conversations and material uploads, collect, and evaluate tasks, and keep track of grades. Cloud-based LMS installations allow faculty members to upload and share class-specific papers, videos, MP3s, and other media. The educational portals offering text, audio, and video study resources are another forward-thinking aspect of e-learning. Globally, the Khan Academy is one of the most famous educational portals.

Vojtesek, Jiri & Hutak, Jan. (2019) advocates that e-learning encompasses a range of options, from straightforward file sharing to complex Learning Management Systems (LMS) that enable online classes using Voice-over-IP services (VoIP). The open-source Moodle learning management system, which is widely used in colleges and high schools, is a typical component of this LMS. Most of the capabilities required for modern education, such as blended learning and flipped classrooms, are available in Moodle, which is developed in PHP and released under the GNU General Public License. Depending on the kind of learning, the instructor can design several kinds of classrooms (full-time, distance learning, etc.). Sharing materials is common place; tutors may use Moodle to administer tests to students, assign assignments that they can edit online, and more. Additional features may be added via the plugins. Using instructional videos that have been posted on websites for sharing videos, such as Vimeo, YouTube, and others, is another contemporary teaching technique. Teachers merely need to share a link between them and their students to access these sites immediately. It is increasingly commonplace to host conferences, workshops, and seminars on topics relevant to higher education and educational research at the worldwide level using virtual platforms like Cisco Webex and Zoom. In order to improve students' learning experiences through the use of blended learning, there have been advancements in recent years in the support systems for teachers to improve their approaches. According to Hüseyin Bicen et. al. (2014) teachers should use one or more Web 2.0 applications, such as Facebook, Twitter, WiziQ, etc., to establish a blended learning environment. These are freely downloadable from the Internet, and educators can select the ones that best suit their own needs. To further the engagement process and provide opportunities for assessment, consultation sessions about these shared goals and projects can then be held with the course moderators, either in-person or virtually.

## CONCLUSIONS AND SUGGESTIONS

For the training teachers, to transform flip blended training approaches into highly effective blended learning solutions, it is better to make the real in-person (or virtual but live) meeting for advancing discussions about the teaching- learning content, doing practical exercises on it, and spending time in learner-trainer engagement, rather than students discovering the course materials for the first time.

The training teachers who are not used to studying in a blended

mode may need to first acquire the skills necessary to learn in a blended learning environment. For example, engagement in online discussion boards and other online learning activities is just as crucial as in-person classroom instruction. Additionally, as blended learning heavily relies on peer-to-peer learning, the working professionals in the teacher education will likely need to modify their expectations, reset their learning methods, and even unlearn some of the habits they developed during their prior traditional classroom-based educational experience.

In the 21<sup>st</sup> century, the use of blended learning approaches has become indispensable. The teacher trainees in the B.Ed., D.El.Ed., and allied colleges must upskill themselves in the process of blended learning which will benefit the educational ecosystem by fulfilling the needs of the students of digital era. A comprehensive professional development programmes and courses for blended mode of teaching and learning must be imparted in every educational institution of the country.

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